Applicant: Gopalan Raman Serial No.: 09/698,644 Filed: October 27, 2000

Docket No.: 10002988-1

Title: METHOD AND APPARATUS FOR SECURE PRINTING

REMARKS

This Amendment is responsive to the Final Office Action mailed February 11, 2004. Claims 1-3, 5, and 10-20 were rejected. With this Response, claims 1, 3, 10, 15, and 18 have been amended. Claims 1-3, 5, and 10-20 remain pending in the application and are presented for reconsideration and allowance.

Claim Rejections under 35 U.S.C. § 103

Claims 10, 12, and 13 are rejected under 35 U.S.C. §103(a) as being unpatentable over Daigneault (U.S. Patent no. 6,334,678) in view of Mehta (U.S. Patent no. 5,944,881).

Daigneault is said to teach a method identifying a source of an inkjet printed image. The method is said to comprise printing an underlayer 4 on a frontside of print media using an inkjet printing device where the underlayer has a characteristic indicia of the inkjet printing device, the underlayer being a watermark. The Examiner states that watermarks are preprinted images that inherently receive a subsequent printed image that goes on top of the watermark when the media is printed by the end user. Daigneault is further said to teach a storage device 28 for storing information specifying the underlayer, a control device 14 for selecting image information from the storage device to print the underlayer, and an input device.

Daigneault is acknowledged as failing to teach the source of the printed secure image being determined by examination of a back surface opposite the frontside to reveal a mirror image of the underlayer for identifying the characteristic indicia, and the underlayer being printed using one of magenta and cyan ink.

Mehta is said to teach an underlayer being printed using one of magenta and cyan ink (Column 2, Lines 8-10), where examination of the back surface opposite the front side reveals a mirror image of the underlayer for identifying the characteristic indicia (Column 2, Line 30-34).

The Examiner finds it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Daigneault to have the penetrating ink as taught by Mehta, in order to provide a hidden security feature which can be used to authenticate a document as taught by Mehta (Column 2, Lines 30-34).

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In the Examiner's Response to Arguments, the Examiner states that the phrase "the underlayer having a characteristic indicia of the inkjet printing device" in claim 10 has been given its broadest reasonable interpretation. Thus, the Examiner concludes that when a user of the Daigneault device chooses to print a particular design on a media, the design itself is the characteristic indicia of the ink jet printer that printed the design.

Independent claim 10 has been amended to clarify that the underlayer has a characteristic indicia uniquely identifying the inkjet printing device. As set forth in the present application, the underlayer uniquely identifies the particular printer that printed the image (page 9, lines 1-4). There is no teaching or suggestion in Daigneault or Mehta that the watermark uniquely identifies the inkjet printer, nor is there any teaching or suggestion of the desirability of uniquely identifying the inkjet printer. In fact, the watermark of Daigneault is stored on the host computer 28 that controls the inkjet printer (col. 3, lines 32-44) and not on the inkjet printer itself, and therefore cannot be said to uniquely identify the inkjet printer. At best, the watermark of Daigneault identifies the host computer 28. For at least this reason, amended independent claim 10 is not obvious over Daigneault in view of Mehta, and withdrawal of the rejection under 35 U.S.C. §103(a) is respectfully requested.

Claims 12 and 13 depend from amended independent claim 10, which is in allowable condition for the reasons discussed above. Accordingly, dependent claims 12 and 13 are also in allowable condition, and withdrawal of the rejection under 35 U.S.C. §103(a) is respectfully requested.

Claims 1-3, 5, 11, 14-17 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Daigneault in view of Mehta and Silverbrook (U.S. 6,431,704).

Daigneault is said to teach a method for printing a secure image on media using an inkjet printing device, as set forth above with respect to claims 10, 12 and 13. Daigneault is further said to teach: the underlayer can be printed from a group of various colors that are independent of an ink color of the image to be printed by the end-user; and an underlayer wherein examination of a front surface allows viewing of the identification indicia for authenticating the secure image.

In addition to the deficiencies acknowledged above with respect to claims 10, 12 and 13, Daigneault is acknowledged as not teaching the underlayer penetrating into a front

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surface of the media, the secure image completely covering the underlayer, the inkjet printing device for printing the underlayer being the same inkjet printing device for printing the overlayer, the information from the input device being used for printing the overlayer, the underlayer being formed from a series of small ink drops that are sufficiently small to prevent viewing with the naked eye and under normal light, and examination of a back surface opposite the front surface allowing viewing of the identification indicia authenticating the secure image.

Mehta is said to teach an underlayer penetrating into a front surface of the media, the underlayer being printed using one of magenta and cyan ink, the underlayer being formed from a series of small ink drops that are sufficiently small to prevent viewing with the naked eye and under normal light, where examination of the back surface opposite the front surface allows viewing of the identification indicia for authenticating the secure image.

The Examiner finds it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Daigneault to have the penetrating ink as taught by Mehta, in order to provide a hidden security feature which can be used to authenticate a document by exposure to ultraviolet light as taught by Mehta.

Silverbrook is cited as teaching that inkjet printing devices can be used to print images that appear in the foreground of media, and information from an input device 24 being selected for printing the images. The Examiner finds that it would have been obvious to one of ordinary skill in the art at the time of the invention to additionally modify Daigneault to have the inkjet printing device of Daigneault be used to print the overlaying images, in order to save to time and money using only one device to print the underlayer and the overlayer.

In the Examiner's Response to Arguments, the Examiner states that the language "related to" (as found in claims 3 and 18) is a broad recitation of the limitation to which Applicant is referring. For example, the Examiner states the underlayer and overlayer are related by being printed on the same media.

Independent claims 1 and 15 have been amended to specify that the identification indicia is <u>derived from</u> the secure image, as described in the application at page 6, lines 5-7. None of Daigneault, Mehta, or Silverbrook teach or suggest that the identification indicia is <u>derived from</u> the secure image. The underlayers taught by Daigneault and Mehta are

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preprinted and independent from the image be printed later on top of the underlayer. Silverbrook does not address the printing of an underlayer, and therefore cannot make any teaching or suggestion regarding an underlayer. For at least this reason, amended independent claims 1 and 15 are not obvious over Daigneault in view of Mehta and Silverbrook, and withdrawal of the rejection under 35 U.S.C. §103(a) is respectfully requested.

Claim 3 has been amended to remain consistent with the language of amended claim 1, from which it depends.

Claims 2, 3, 5, 11, 16 and 17 depend, directly or indirectly, from amended independent claims 1, 10 and 15, which are in allowable condition for the reasons discussed above. Accordingly, dependent claims 2, 3, 5, 11, 16 and 17 are also in allowable condition, and withdrawal of the rejection under 35 U.S.C. §103(a) is respectfully requested.

Claims 18-20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Daigneault in view of Mehta and Liechti (U.S. Patent No. 5,038,153).

Daigneault and Mehta are said to teach a method for printing a secure image on media using an inkjet printing device, as set forth above. Liechti is said to teach that inkjet printing devices can be used to print images that appear in the foreground of media.

The Examiner asserts it would have been obvious to one of ordinary skill in the art to: modify Daigneault to print the company logo of Daigneault as a foreground image as taught by Liechti, in order to enhance the aesthetic quality of the media by providing matching background and foreground images; additionally modify Daigneault to have the inkjet printing device of Daigneault be used to print the overlaying images, in order to save time and money by using only one device to print the underlayer and the overlayer; and additionally modify Daigneault to have the inkjet printing device of Liechti be used to print the overlaying images.

Independent claims 18 has been amended to specify that the identification indicia is derived from the secure image, as described above with respect to independent claims 1 and 15. Accordingly, the comments presented with respect to claims 1 and 15 are equally applicable to claim 18. Specifically, none of Daigneault, Mehta, or Liechti teach or suggest that the identification indicia is derived from the secure image. The underlayers taught by

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Daigneault and Mehta are preprinted and independent from the image be printed later on top of the underlayer. Liechti does not address the printing of an underlayer, and therefore cannot make any teaching or suggestion regarding an underlayer. For at least this reason, amended independent claim 18 is not obvious over Daigneault in view of Mehta and Liechti, and withdrawal of the rejection under 35 U.S.C. §103(a) is respectfully requested.

Claims 19 and 20 depend, directly or indirectly, from amended independent claim 18, which is in allowable condition for the reasons discussed above. Accordingly, dependent claims 19 and 20 are also in allowable condition, and withdrawal of the rejection under 35 U.S.C. §103(a) is respectfully requested.

Allowable Subject Matter

In light of the above, Applicant believes independent claims 1, 10, 15 and 18, and the claims depending therefrom, are in condition for allowance. Allowance of these claims is respectfully requested.

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CONCLUSION

Any inquiry regarding this Amendment and Response should be directed to either Matthew B. McNutt at Telephone No. (512) 231-0531, Facsimile No. (512) 231-0540, or Dmitry Milikovsky at Telephone No. (858) 655-3251, Facsimile No. (858) 655-5859. In addition, all correspondence should continue to be directed to the following address:

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Respectfully submitted,

Gopalan Raman,

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Date: APRIL 9 ZOUY

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<u>CERTIFICATE UNDER 37 C.F.R. 1.8</u>: The undersigned hereby certifies that this paper or papers, as described herein, are being deposited in the United States Postal Service, as first class mail, in an envelope address to: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 9th day of April, 2004.

Name: Matthew B. McNutt